

FIS920010074  
I26-0016-D

# REMARKS

Claims 1-8 were pending in the present application. Claims 1, 2, 5 and 7 have been amended and Claim 8 has been canceled, leaving Claims 1-7 for further consideration in the present amendment. No new matter has been entered by the amendments. For example, support for the amendments can be found at least in [0002]-[0008], wherein the Applicants discuss some of the problems noted in the art with respect to dopant ions.

Reconsideration and allowance of the claims is respectfully requested in view of the following remarks.

## Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 7 and 8 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner has asserted that Claim 7 is indefinite because it is not clear what manipulative steps are required to enable removing of an increased amount of dopant ions. The rejection of Claim 8 has been rendered moot in view of the cancellation thereof. Applicants respectfully traverse the rejection applied to Claim 7.

Applicants respectfully submit that the proper standard for determining indefiniteness is whether one of ordinary skill in the art would understand what is claimed when the claim is read in light of the specification. *Seattle Box Co. v. Industrial Crating and Packing, Inc.*, 731 F.2d 818, 826, 221 U.S.P.Q. 568, 573-74 (Fed. Cir. 1984).

Claim 7 is definite since it depends on Claim 1 and further adds the step of heating the semiconductor material surface and removing an increased amount of dopant ions relative to not heating the semiconductor material surface. One of ordinary skill would readily understand that the manipulative step is heating the semiconductor material surface

FIS920010074  
I26-0016-D

to increase a rate of dopant ion removal from the surface. Accordingly, the rejection is improper and should be withdrawn.

Claim Rejections Under 35 U.S.C. § 102

Claims 1, 3, 4, and 7 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 4,617,251 to Sizensky ("Sizensky"). Applicants respectfully traverse.

Sizensky is directed to a photoresist stripping process. The photoresist stripping process includes contacting the photoresists with an organic solvent that includes an amine compound. The photoresists are characterized as an organic polymeric material and includes ion beam photoresists.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

Sizensky fails to anticipate Claim 1 because there is no disclosure of the feature of "coating the semiconductor material surface containing dopant ions with a non-aqueous organic solvent selected from the group consisting of ketones, polyhydric alcohols, cyclic ethers and esters" as claimed by Applicants. Rather, Sizensky discloses contacting an organic polymer material (e.g., a photoresist) with an organic solvent that includes an amine compound. Moreover, although Sizensky references an ion beam photoresist, it merely discloses it in context to removing the organic photoresist with the organic solvent. There is no disclosure of coating a semiconductor material surface containing dopant ions with a non-aqueous organic solvent nor is there any disclosure of removing the solvent and the dopant ions from the semiconductor material surface.

As Sizensky does not teach all elements of Applicants' Claim 1, Sizensky cannot anticipate Claim 1. Given that Claims 3, 4, and 7 each depend ultimately from and further limit Claim 1, these claims are also not anticipated for at least the same reasons. Accordingly, it is respectfully requested that the rejection be withdrawn.

FIS920010074  
I26-0016-D

Claim Rejections Under 35 U.S.C. § 103(a)

A. Claims 2, 5, 6, and 8 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Sogo. Applicants respectfully traverse this rejection.

Sizensky is discussed above.

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all of the claim limitations, among others.

As discussed above, there is no disclosure nor is there any suggestion of coating the semiconductor material surface containing dopant ions with a non-aqueous organic solvent. Rather, Sizensky teaches and suggests a photoresist stripping process, which is markedly different from a process for removing dopant ions from a semiconductor material surface. As noted in Applicants background section, prior art methods of cleaning processes have frequently been employed during device fabrication are generally optimized for removal of inorganic, organic, and particulate matter. These processes are markedly different from removal of dopant ions subsequent to ion implantation.

In view of the foregoing, a prima facie case of obviousness has not been established against Claims 2, 5, 6, and 8. Accordingly, the rejection is requested to be withdrawn.


It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

FIS920010074  
I26-0016-D

If there are any additional charges with respect to this Amendment or otherwise,  
please charge them to Deposit Account No. 09-0458 maintained by Assignee.

Respectfully submitted,

CANTOR COLBURN LLP  
Applicants' Attorneys

By:   
Peter R. Hagerty  
Registration No. 42,618

Date: August 8, 2005  
Customer No.: 29371  
Telephone: (404) 607-9991